Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Television Systems and Their	)	MB Docket No. 87-268
Impact upon the Existing Television	)	
Broadcast Service	)	

COMMENTS OF THE WALT DISNEY COMPANY

The Walt Disney Company ("Disney"), by its attorneys, hereby submits comments in response to the *Seventh Further Notice of Proposed Rulemaking* ("*Seventh FNPRM*") of the Federal Communications Commission ("FCC" or "Commission") in which the Commission proposes a final DTV Table of Allotments ("Final DTV Table").[1] Disney is the ultimate parent of: (i) ABC, Inc., licensee of full-power television station WPVI-TV, Philadelphia, Pennsylvania ("WPVI"); and (ii) American Broadcasting Companies, Inc., licensee of full-power television station WABC-TV, New York, New York ("WABC").[2] Disney urges the Commission to modify WPVI's allotment in the Final DTV Table because coverage from the allotted facilities proposed by the FCC would not replicate WPVI's DTV service area (defined by reference to the note to paragraph (e)(2) of Section 73.622) for its post-transition digital television ("DTV") operations. In addition, Disney renews its support of the Commission's allotment of channel 7 to WABC.

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[1] *See* Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Seventh Further Notice of Proposed Rulemaking*, FCC 06-150 (rel. Oct. 20, 2006) ("*Seventh FNPRM*").

[2] Disney also is the ultimate parent of eight other full-power television stations whose facilities are not addressed in these comments: WLS-TV; WTVD(TV); WJRT-TV; KFSN-TV; KABC-TV; KTRK-TV; KGO-TV; and WTVG(TV).

I. WPVI

In its *Sixth Report and Order* in this docket, the Commission allotted to WPVI a DTV facility with 1000 kilowatts ("kW") effective radiated power ("ERP") at 332 meters ("m") height above average terrain ("HAAT") and a non-directional antenna on channel 64.[3] An ERP of 1000 kW was not sufficient to permit replication of WPVI's channel 6 analog Grade B contour; however, the Commission set 1000 kW as the maximum ERP for any DTV allotment. In recognition of this problem, which affected WPVI and other stations, the Commission adopted Section 73.6222(e)(2) and the accompanying note. These provisions protect stations like WPVI, whose allotted DTV power was truncated at 1000 kW, by defining the station's protected DTV service area as the Grade B contour of the associated analog television station. Specifically, the DTV service area for these stations is "the geographic area within the station's analog Grade B contour where its DTV signal strength is predicted to exceed the noise-limited service level, *i.e.*, 41 dB, as determined using the Longley-Rice methodology."[4] This alternative DTV service area definition applies to WPVI because: (i) its initial allotment was for 1000 kW (which was not enough ERP to replicate its analog Grade B contour), and (ii) its DTV channel, 64, is in the UHF band.

Less than ten months after the FCC made DTV channels available, WPVI commenced full-power DTV operation in November 1998 on channel 64.[5] At this time, WPVI was one of the first stations in the country to initiate full-power DTV operation. Although WPVI's DTV

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[3] *See* Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Sixth Report and Order*, 12 FCC Rcd 14588 (1997), at Appendix B.

[4] *See* 73.622(e)(2), Note.

[5] WPVI's application for license to cover its DTV construction permit on channel 64 was accepted for filing on November 12, 1998 and remains pending. *See* FCC File No. BLCDT-19981112KE. WPVI-DT has been operating under automatic program test authority since that date. Except for a few hours required to repair transmission line failures, WPVI has been providing DTV service since November 1998.

allotment provided for a 1000 kW facility with a 332 m HAAT, the actual constructed facility for WPVI-DT has an ERP of 500 kW and a 390 m HAAT. This facility replicated the service area of the initial allotment facility but could not replicate the station's Grade B service area due to the 1000 kW truncation described above (*i.e.*, WPVI was a VHF station with a Grade B contour that extended beyond the noise limited contour of its initial DTV allotment). WPVI-DT also was limited to 500 kW at 390 m HAAT because it could not increase interference to WMBC-TV Newton, New Jersey on channel 63.[6]

In its November 2004 Form 381 certification, WPVI certified that it would operate post-transition DTV facilities based on its "allotted replication facilities."[7] WPVI later received a tentative channel designation of channel 6, its current analog channel, for its post-transition DTV facilities. In the *Seventh FNPRM*, the Commission states that the Final DTV Table facilities are intended to match a station's certification in its Form 381.[8] For WPVI, this means that the Final DTV Table facilities should permit WPVI to replicate its analog Grade B contour.[9] However, the facilities proposed in the Final DTV Table for WPVI fall far short of this intended protection. Specifically, the proposed Final DTV Table allotment facilities—with an ERP of 2.548 kW and 332 m HAAT—would not develop a noise limited contour at channel 6 that approximates the licensed Grade B contour in any direction.[10]

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[6] No increased interference to WMBC was permitted because it already received 10% or more interference, in the aggregate. *See* 47 C.F.R. § 73.623(c)(2). Because WPVI will be moving from channel 64 to channel 6, WMBC's situation will not affect WPVI's post-transition DTV operation.

[7] *See* FCC File No. BCERCT-20041105BCZ.

[8] *Seventh FNPRM*, at ¶ 2.

[9] As demonstrated above, pursuant to the note to 73.622(e)(2), WPVI's replication facilities would be those that enable it to cover its DTV service area (*i.e.*, the station's analog Grade B contour).

[10] In fact, the Final DTV Table facilities would not even permit replication of the smaller area served by the initial allotment or current 500 kW DTV facilities.

Exhibit 1 of the Engineering Statement depicts the coverage disparities between WPVI's analog Grade B contour, current DTV contour and proposed Final DTV Table contour. Exhibit 2 demonstrates that WPVI must be authorized to operate with at least 4.8 kW ERP, rather than the 2.548 kW set forth in the proposed Final DTV Table, in order to replicate WPVI's Grade B service area.[11] This ERP of 4.8 kW is far less than the maximum permissible for a Zone I station with WPVI's HAAT.[12]

It is unclear how the Commission concluded that an ERP of 2.548 kW would be sufficient for WPVI. It is possible that the Commission overlooked WPVI's status as a special 1000 kW station because its construction permit facility authorizes a power of 500 kW from a tower height that is greater than that set forth in the original allotment. Or, it is possible that there was some confusion due to the fact that WPVI-DT's license to cover application remains pending and, thus, WPVI-DT is listed in CDBS as "off-air."[13] The Commission's use of the dipole factor also could have contributed to the low ERP set forth in the Final DTV Table.[14] Regardless of the reason, Disney urges the Commission to correct the error and modify WPVI's allotment as set forth herein and in the Engineering Statement. Specifically, the Commission

[11] WPVI's DTV facilities are authorized at 332 m HAAT.

[12] According to Section 73.622(f)(6) of the FCC's rules, the maximum ERP for VHF in Zone 1 is 10 kW for an HAAT up to 305 m. For a higher HAAT the following equation applies: ERP = 92.57-33.24 LOG (HAAT). For an HAAT of 332 m (WPVI-TV6 antenna HAAT), the maximum ERP would be 8.77 kW. For an HAAT of 390 m (WPVI-D64 antenna HAAT), the maximum ERP would be 6.443 kW.

[13] WPVI reported this "off-air" error in an attachment to its Form 381 certification but it has not yet been corrected. *See* FCC File No. BCERCT-20041105BCZ, at Exhibit 1.

[14] It may be possible to approximate the facilities proposed in the Final DTV Table by taking WPVI's "allotted facilities" (1000 kW at 332 m on channel 64) and plotting a noise limited contour that is changed by the dipole factor for channel 64, or 1.95 dB, which further reduces coverage when compared to the WPVI channel 6 Grade B contour. This faulty calculation, however, would cause WPVI-DT's noise limited coverage on channel 64 to extend only to the 42.95 dBu F(50:90) contour, instead of the 41 dBu contour specified in Section 73.622(e)(2).

should revise the Final DTV Table to specify an ERP for WPVI of at least 4.8 kW ERP, operating at an HAAT of 332 m.

II. WABC

In the *Seventh FNPRM*, the Commission requested comment on its proposed allotment of channel 7 for WABC.[15] Disney appreciates and fully supports this allotment proposal as well as the grant of WABC's request for waiver of the 0.1 percent interference standard. As set forth in previous pleadings, allotment of channel 7 to WABC will benefit WABC's current viewers, many of whom have received WABC on channel 7 via antenna for decades. In addition, as the Commission found, another reason in favor of allotting channel 7 to WABC is that the allotment would eliminate interference between WABC and WEDH-TV, Hartford, Connecticut.[16] Disney has made lengthy arguments regarding these reasons and others, all of which provide support for the allotment of Channel 7 to WABC. Instead of repeating those arguments here, Disney incorporates its earlier pleadings into these comments by reference.[17] For the reasons set forth herein and in these earlier pleadings, Disney urges the Commission to award channel 7 to WABC in its Final DTV Table.

[15] *Seventh FNPRM*, at ¶ 36.

[16] Although WABC reserves arguments until the allotments are final, WABC reiterates that it does not have any objection to the WEDH allotment (and of course would dismiss all objections) as long as Channel 7 continues to be allotted to WABC.

[17] *See* WABC *ex parte* in MB Docket No. 03-15, Emergency Request for Waiver (Aug. 15, 2005); WABC *ex parte* in MB Docket No. 03-15, Reply to Opposition (Oct. 7, 2005); WABC *ex parte* in MB Docket No. 03-15 (Jan. 20, 2006); WABC *ex parte* in MB Docket No. 03-15 (Feb. 13, 2006); WABC *ex parte* in MB Docket No. 03-15 (May 12, 2006).

III. CONCLUSION

Disney understands the difficulties the Commission has faced in constructing the Final DTV Table. Disney also appreciates the Commission giving licensees an opportunity to correct any errors or discrepancies in the proposed Final DTV Table. As further explained herein, the Commission should modify WPVI's allotment and finalize the allotment of channel 7 to WABC. Such action by the Commission would serve the public interest because it would permit each station's digital signal to reach as many of its current analog viewers as possible.

Respectfully submitted,

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January 25, 2007

Its Attorneys

ENGINEERING EXHIBIT

ABC, INC.,
TELEVISION STATION WPVI, FACILITY ID 8616
CHANNEL 6 – 74.1 KW (NTSC) – 332 METERS HAAT
CHANNEL 64 – 1000 KW (DTV INITIAL ALLOTMENT) – 332 METERS
CHANNEL 64 – 500 KW (MODIFIED CP) – 390 METERS HAAT
PHILADELPHIA, PENNSYLVANIA

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ENGINEERING EXHIBIT

ABC, INC.,
TELEVISION STATION WPVI, FACILITY ID 8616
CHANNEL 6 – 74.1 KW (NTSC) – 332 METERS HAAT
CHANNEL 64 – 1000 KW (DTV INITIAL ALLOTMENT) – 332 METERS
CHANNEL 64 – 500 KW (MODIFIED CP) – 390 METERS HAAT
PHILADELPHIA, PENNSYLVANIA

ENGINEERING STATEMENT

Introduction

ABC Inc. is the licensee of WPVI (TV), Philadelphia, Pennsylvania. WPVI operates NTSC analog facilities on channel 6 with an effective radiated power of 74.1 KW at a height above average terrain of 332 meters as described in its license which bears FCC File Number BLCT-2282. This license describes the facilities that were used as the basis for DTV replication facilities.

In the Sixth Report and Order, WPVI was assigned a DTV Initial Allotment on Channel 64 of 1000 KW at 332 meters HAAT with a non-directional antenna. This HAAT is identical to the HAAT of the main NTSC antenna.

Because tower aperture area for DTV television antenna was scarce, WPVI built a new tower to support its DTV antenna at a location near the WPVI main channel 6 antenna. This tower also serves another Philadelphia DTV station. Because DTV Initial Allotments in the Philadelphia area were assigned in the UHF band, this tower was designed to provide antenna aperture which is higher than that employed by the WPVI main antenna in order to achieve a greater line-of-sight coverage area.

The DTV Initial Allotment channels were released in February of 1998. WPVI was one of several stations that committed to initiating DTV operation in November of 1998. WPVI was able to meet that commitment, and has been continuously broadcasting Digital Television on channel 64 since that time, with only a few hours lost due to repairs required to the WPVI-DT transmission line. The Modified DTV CP bears FCC File Number BMPCDT-19980826KG. The application for license to cover presently operating WPVI-DT facilities bears FCC File Number BLCDT-19981112KE.

The new tower afforded almost 60 meters of additional height. The ERP that would produce equivalent interference to WMBC, Newton, New Jersey, was 500 KW at the new 390 meter HAAT. This ERP produced coverage that is essentially equivalent to that which is predicted from the facilities in the WPVI-DT Initial Allotment. Neither the facilities described in the DTV Initial Allotment nor the equivalent facilities which were built and are presently operating provided a replication of the WPVI NTSC Grade B coverage contour.

WPVI is not alone in this circumstance. The Commission recognized this general situation and added a Note to Section 73.622(e)(2) which defines such a station's DTV service area as "the geographic area within the station's analog Grade B contour where its DTV signal strength is predicted to exceed the noise-limited service level, i.e., 41 dB[u], as determined using the Longley-Rice methodology."

The Channel Election Process

WPVI attempted to identify a suitable UHF channel which could be used to provide post-transition service. Because Philadelphia is located in one of the most congested areas in the country, and has large major cities to the north and to the south, the availability of an unused UHF or high VHF channel did not exist when WPVI was required to file in the First Round.

Although most experience with DTV transmission has been obtained with UHF channels, the experience is less in the high VHF channels and practically no information is available about DTV operation in the low VHF band, with earlier low band data collection efforts resulting in inconclusive results.

WPVI realized a need for some additional information regarding DTV operation at low VHF channels, specifically channel 6. To further investigate this need, WPVI sought Special Temporary Authority to perform tests on its NTSC channel 6. This STA was granted on February 4, 2005.

The facilities under study with this STA provided 4.8 KW ERP at 332 meters, and utilized the WPVI main channel 6 antenna. These tests were performed in the very early morning hours. Data collection was maximized through a cooperative effort that involved engineering technical staff from ABC Owned TV Corporate Engineering, WPVI, MSTV, Harris Corporation, Dielectric and others.

Faced with no viable alternative channel and the extremely limited experience and data gained from the STA operation, WPVI, in the interests of expediting the channel election process, asked the Commission to assign channel 6 for WPVI's post transition DTV operation.

WPVI Coverage

WPVI operates on channel 6 with NTSC facilities described in BLCT-2282. This license provides an ERP of 74.1KW at an HAAT of 332 meters, on channel 6.

Exhibit 1 is a figure that shows the WPVI Predicted Grade B contour that is based on the NTSC channel 6 licensed facilities. The Grade B contour is plotted in green. This figure also shows the 41 dBu contour that is predicted based on the WPVI-DT Initial Allotment of 1000 KW at 332 meters, and this contour is plotted in black. The third contour shown in Exhibit 1 is the channel 6 DTV noise limited contour, 28 dBu, that is calculated from the facilities described in the Seventh Further Notice of October, 2006. This contour is plotted as a dashed blue line.

These contours are plotted in strict accordance with the methods contained in the Commission's Rules.

In each case, the contour that represents the oldest facility is found to provide the largest coverage, with successive decreases in predicted coverage with each successive facility.

Exhibit 2 shows the predicted coverage contours for WPVI NTSC Grade B coverage in green and the channel 6 DTV noise limited contour that is predicted for a DTV facility operating with 4.8 KW ERP at 332 meters HAAT. The channel 6 DTV noise limited contour is shown in red, and the ERP has been calculated to produce a DTV noise limited contour that does not exceed the presently licensed Grade B contour in any direction.

Exhibit 2 clearly shows that an ERP of at least 4.8 KW is required to produce a DTV noise limited contour on channel 6 that approximately replicates the service provided by the presently licensed WPVI Grade B contour.

Exhibit 3 shows, in addition to the WPVI Grade B Contour, the predicted 41 dBu contours produced by the WPVI Initial Allotment in black and the WPVI Modified CP in red. The Modified CP, BMPCDT-19980826KG, specifies operation with 500 KW ERP and 390 meters HAAT from the new tower location, approximately 248 meters distant from the WPVI main antenna.

The Initial Allotment specifies operation with 1000 KW ERP at an HAAT of 332 meters, from the same location as the WPVI channel 6 main antenna.

As can be seen, the 41 dBu contours are nearly identical, the slight differences owing to differences in the F(50:90) distance computation with different heights.

This figure also shows a dotted area where Longley-Rice methodology predicts a signal equal to or greater than 41 dBu. This Longley-Rice calculation is based on the WPVI Initial Allotment, 1000 KW at 332 meters HAAT.

This Longley Rice calculation was performed to show that the coverage area of WPVI-DT is defined to extend to the “Grade B contour of the associated analog television station, as authorized on April 3, 1997” as stated in the Note to section 73.622(e)(2).

Exhibit 4 depicts the channel 6 Grade B contour in green, and also shows the predicted 42.95 dBu contour as a dashed black line. The 42.95 dBu contour is the noise limited contour of 41 dBu with the dipole factor applied. The predicted 42.95 dBu contour is wholly contained within the WPVI NTSC Grade B contour.

Exhibit 4 also shows the area with yellow cross-hatching where a signal equal to or greater than 42.95 dBu is predicted by Longley-Rice methodology. In all directions, areas of coverage with a signal equal to or greater than 42.95 dBu are found at or beyond the Licensed NTSC Grade B contour.

Exhibit 5 is similar to Exhibit 4, but derives predicted DTV signal strengths generated by facilities described in the Modified CP. Areas of coverage determined by Longley-Rice calculations with a signal equal to or greater than 42.95 dBu are found, again, at or beyond the Licensed NTSC Grade B contour, and slightly exceed those predicted from the Initial Allotment.

With or without application of the dipole factor, a signal equal to or greater than that produced by a noise limited DTV contour is produced by the WPVI-DT facility, and this signal extends beyond the presently licensed Grade B contour.

Conclusion

WPVI was granted an initial allotment of 1000 KW at 332 meters HAAT. The WPVI-DT facility meets all the requirements of the Note to Section 73.622(e)(2) of the Rules, and produces a predicted DTV signal strength that equals or exceeds that noise limited signal level as determined using the Longley-Rice Methodology over the area contained within the WPVI NTSC Grade B contour.

WPVI-DT could not increase ERP beyond 500 KW to prevent additional interference to WMBC, channel 63, Newton New Jersey. WMBC is an NTSC station not subject to additional de minimis interference because its percentage loss is greater than 10 percent.

Results of calculations plotted on Exhibit 2 show that an ERP of 4.8 KW at 332 meters HAAT is required for channel 6 DTV post-transition operation to replicate the coverage within the WPVI NTSC Grade B contour. Neither the noise limited contour generated by the Initial Allotment nor the noise limited contour generated by the facilities described in the modified CP replicate the service that WPVI provides with its analog facilities on channel 6.

The post transition facilities described in Appendix B of the Seventh Further Notice, 2.548 KW at 332 meters HAAT, fail to replicate the service that WPVI provides as well.

The maximum power allowed a DTV station on channel 6 is defined in Section 73.622(f)(6) and for an HAAT of 332 meters, this maximum ERP is 8.77 KW.

Because of these facts, it is respectfully requested that the Commission assign a minimum of 4.8 KW ERP to WPVI for its post transition DTV operation on channel 6.

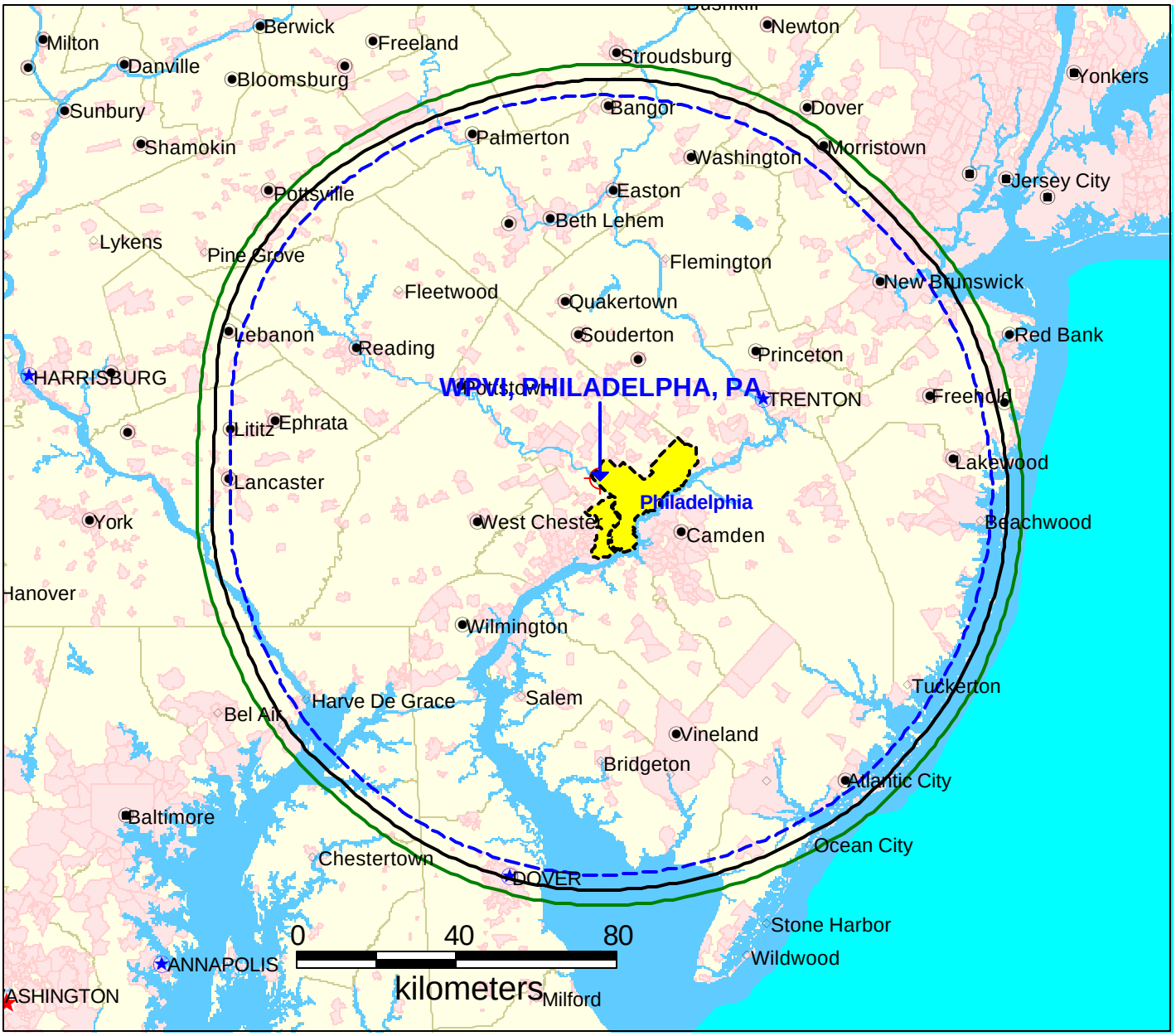
Certification

This statement, and the associated exhibits, were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

Alfred E. Resnick, P. E.

Dated: January 25, 2007
Writer's Telephone: 703 569-7704

EXHIBIT 1



PREDICTED COVERAGE CONTOURS

WPVI, PHILADELPHIA, PA
CH 6, 2.548 kW, 332 mHAAT
404 mRCAMSL, D-ANT

(DTV - ALLOTMENT)
CH. 64 - 1000 kW - 332 m HAAT
REP PAPHILADELPH64 D-ANT

(TV - LICENSED)
CH. 6, 74.1 kW, 332 m HAAT

PREDICTED 28 dBu F(50,90)
NOISE LIMITED CONTOUR

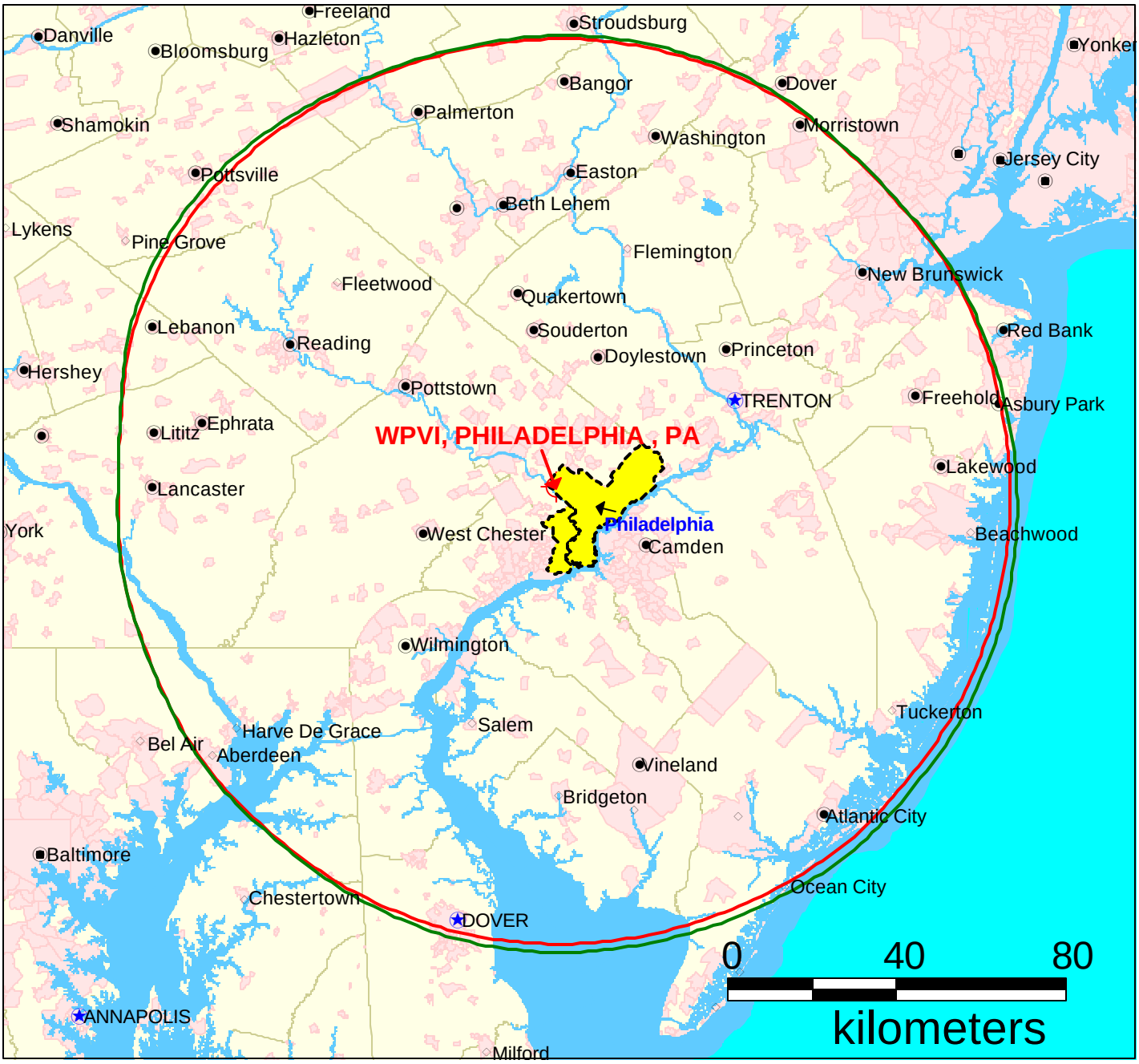
PREDICTED 41 dBu F(50,90)
NOISE LIMITED CONTOUR

PREDICTED 47 dBu F(50,50)
GRADE B CONTOUR

JANUARY 2007

CARL T. JONES
CORPORATION

EXHIBIT 2



PREDICTED COVERAGE CONTOURS

WPVI, PHILADELPHIA, PA
(NEW DTV)
CH. 6 - 4.8 kW - 332 mHAAT- 404 mRCAMSL
NON-D ANT

PREDICTED 28 dBu F(50,90)
NOISE LIMITED CONTOUR

(TV - LICENSED)
CH. 6 - 74.1 kW - 332 mHAAT- 404 mRCAMSL
NON-D ANT

PREDICTED 47 dBu F(50,50)
GRADE B CONTOUR

JANUARY 2007

CARL T. JONES CORPORATION

EXHIBIT 3

PREDICTED COVERAGE CONTOURS

WPVI, PHILADELPHIA, PA
(DTV - CP MOD)
CH. 64 - 500 kW - 390 m HAAT
(DTV - ALLOTMENT)
CH. 64 - 1000 kW - 332 m HAAT
REP PAPHILADELPH64 D-ANT
(TV - LICENSED)
CH. 6 - 74.1 kW - 332 m HAAT

PREDICTED 41 dBu F(50,90) NOISE LIMITED CONTOUR

PREDICTED 41 dBu F(50,90) NOISE LIMITED CONTOUR

PREDICTED 47 dBu F(50,50) GRADE B CONTOUR

WPVI-DT CP MOD Coverage
Longley Rice 41 dBu

JANUARY 2007

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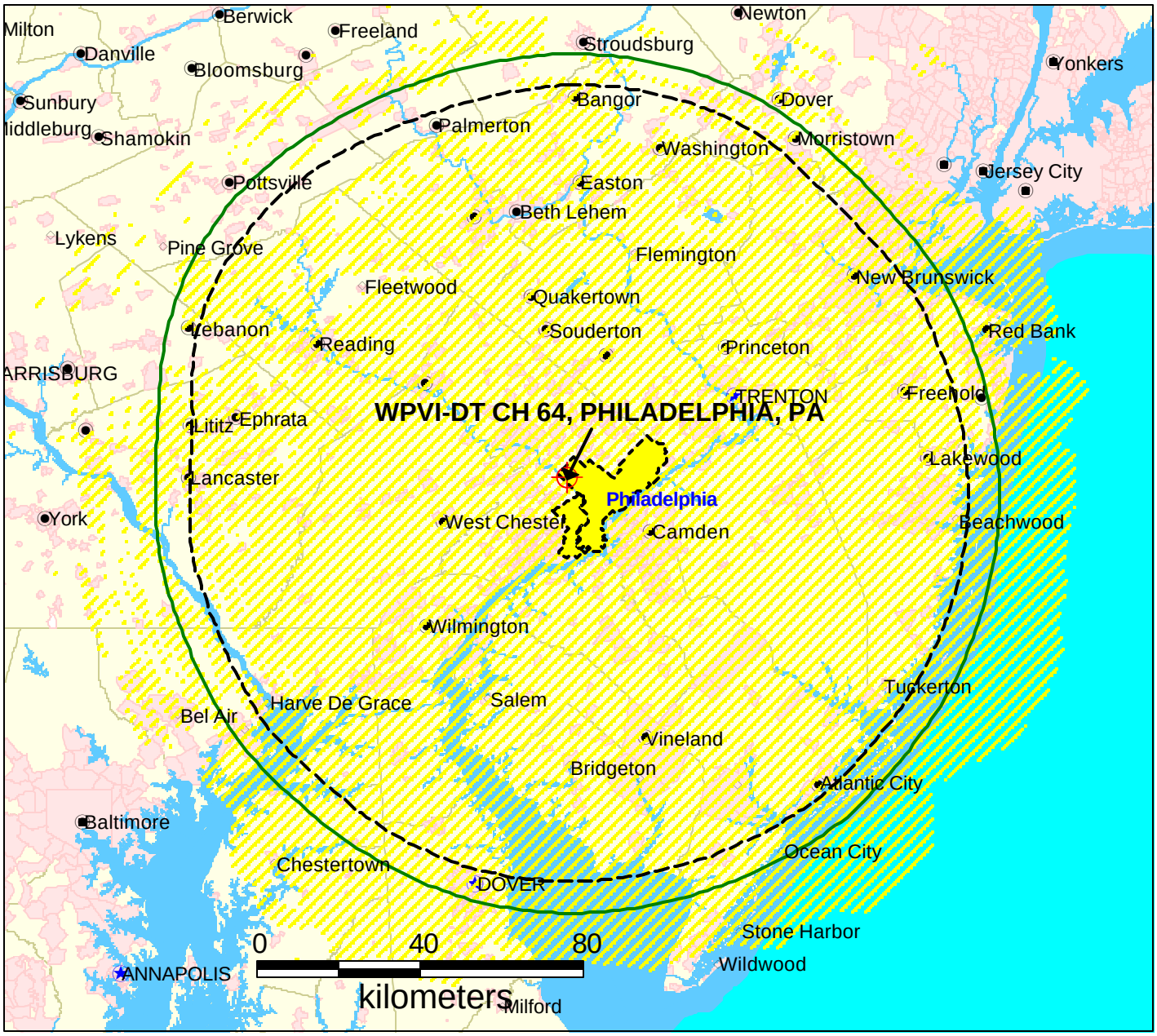
EXHIBIT 4



PREDICTED COVERAGE CONTOURS

(DTV - ALLOTMENT)
CH. 64 - 1000 kW - 332 m HAAT
REP PAPHILADELPH64 D-ANT
(TV - LICENSED)
CH. 6 - 74.1 kW - 332 m HAAT

WPVI-DT Allotted Coverage
Longley Rice 42.95 dBu

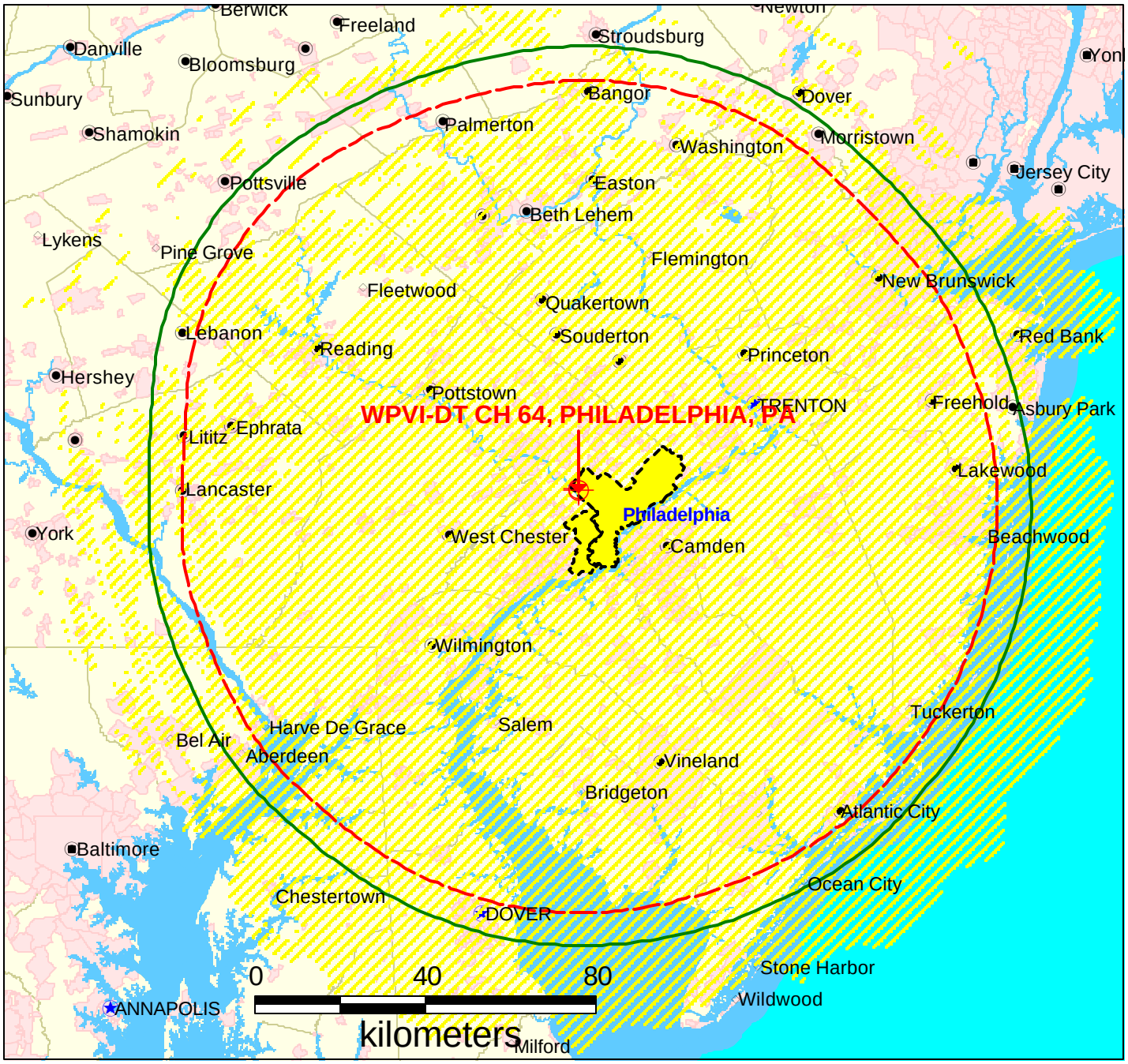
PREDICTED 42.95 dBu F(50,90)

PREDICTED 47 dBu F(50,50)
GRADE B CONTOUR

JANUARY 2007

CARL T. JONES CORPORATION

EXHIBIT 5



PREDICTED COVERAGE CONTOURS

WPVI, PHILADELPHIA, PA
(DTV - CP MOD)
CH. 64 - 500 kW - 390 m HAAT

(TV - LICENSED)
CH. 6 - 74.1 kW - 332 m HAAT

WPVI-DT CP MOD Coverage
Longley Rice 42.5 dBu

PREDICTED 42.95 dBu F(50,90)

PREDICTED 47 dBu F(50,50)
GRADE B CONTOUR

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